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Invention:						
of the and Method For Remotely Controlling Devices						
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# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	THOMAS P. WARNER	) Group Art Unit:
		) Group Art Unit: ) 3732
SERIAL NUMBER:	10/730,678	)
FILED:	December 8, 2003	) Examiner: ) John J. Wilson
FOR:	SYSTEM AND METHOD FOR REMOTELY CONTROLLING DEVICES	) ) )

## SUBSTITUTE APPEAL BRIEF

# 1. THE REAL PARTY IN INTEREST

The real party in interest in this appeal is Warner Systems, LLC. Ownership by Warner Systems, LLC is established by an assignment document recorded for this application on August 9, 2004 on Reel 015662 Frame 0938.

## 2. <u>RELATED APPEALS AND INTERFERENCES</u>

Applicant knows of no related patent applications or patents under any appeal or interference proceeding.

#### 3. <u>STATUS OF CLAIMS</u>

Claims 1-5, 7-18, 20 and 22-30 are currently pending.

Claims 1-5, 7, 12-17, 20, 22-26, and 28-30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Beier et al., U.S. Patent No. (4,571,681) in view of Murry et al., U.S. Patent No. (4,156,187). Applicant's attorney notes that in telephone conferences with the Examiner John Wilson and the Supervisor Kevin Shaver, the foregoing parties and applicant's attorney concurred that the Final Office Action incorrectly identified Murry et al. as U.S. Patent No. (4,156,127). Instead, Murry et al. should have been identified as U.S. Patent No. (4,156,187).

Claims 8-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Beier et al. in view of Murry et al., U.S. Patent No. (4,156,187) and further in view of Jones et al. (U.S. Patent No. 4,114,275). Applicant's attorney notes that in telephone conferences with the Examiner John Wilson and the Supervisor Kevin Shaver, the foregoing parties and applicant's attorney concurred that the Final Office Action incorrectly identified Murry et al. as U.S. Patent No. (4,156,127). Instead, Murry et al. should have been identified as U.S. Patent No. (4,156,187).

Claims 18 and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Beier et al. in view of Murry et al., U.S. Patent No. (4,156,187) and further in view of Fornoff et al. (U.S. Patent No. 5,931,669). Applicant's attorney notes that in telephone conferences with the Examiner John Wilson and the Supervisor Kevin Shaver, the foregoing parties and applicant's attorney concurred that the Final Office Action incorrectly identified Murry et al. as U.S. Patent No. (4,156,127). Instead, Murry et al. should have been identified as U.S. Patent No. (4,156,187).

#### 4. STATUS OF AMENDMENTS

Applicant submits that no amendments were filed subsequent to the Final Office Action.

## 5. <u>SUMMARY OF CLAIMED SUBJECT MATTER</u>

Independent claim 1 is directed to a system for remotely controlling devices. The system includes a foot pedal unit having a moveable member. See page 7, lines 8-10 and Figure 3. The system further includes a first microprocessor operatively associated with the foot pedal unit and an RF transmitter. See Figure 3, page 7, line 8, and page 4, line 26. The first microprocessor is configured to determine whether at least a first device or a second device is selected. In one exemplary embodiment, the microprocessor utilizes a received Device Actuation Unit ID to determine which device is selected to be controlled. In particular, the microprocessor compares the received Device Actuation Unit ID to a stored Device Actuation Unit ID to determine which device is selected. See Figure 8A and Figure 8B and Figure 13B step 310. The first microprocessor is further configured to induce the RF transmitter to transmit a first RF signal in response to at least partial displacement of the moveable member when the first device is selected. See page 2, lines 5-10, and page 21, lines 7-12. The first microprocessor is further configured to induce the RF transmitter to transmit a second signal in response to at least partial displacement of the moveable member when the second device is selected. See page 2, lines 5-10.

Independent claim 22 is directed to a method for remotely controlling devices. The method includes determining when a first device is selected, utilizing a microprocessor. In one exemplary embodiment, the microprocessor utilizes a received Device Actuation Unit ID to determine when a first device is selected. In particular, the microprocessor compares the received Device Actuation Unit ID to a stored Device Actuation Unit ID to determine when the first device is selected. See Figure 8A and Figure 8B and Figure 13 B step 310. The method further includes inducing an RF transmitter to transmit a first RF

signal in response to at least partial displacement of a moveable member on a foot pedal unit when the first device is selected, utilizing the microprocessor. See page 2, lines 5-10, and page 21, lines 7-12. The method further includes determining when a second device is selected, utilizing the microprocessor. See page 2, lines 5-10. The method further includes inducing the RF transmitter to transmit a second RF signal in response to at least partial displacement of the moveable member on the foot pedal unit when the second device is selected, utilizing the microprocessor. See page 2, lines 5-10. The method further includes controlling the first device based on the first signal. See Figure 13A, step 298.

## 6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether the claims 1-5, 7, 12-17, 20, 22-26, and 28-30 are unpatentable under 35 U.S.C. §103(a) over Beier et al., U.S. Patent No. (4,571,681) in view of Murry et al., U.S. Patent No. (4,156,187).

Whether the claims 8-11 are unpatentable under 35 U.S.C. §103(a) over Beier et al. in view of Murry et al., U.S. Patent No. (4,156,187) and further in view of Jones et al. (U.S. Patent No. 4,114,275).

Whether the claims 18 and 27 are unpatentable under 35 U.S.C. §103(a) over Beier et al. in view of Murry et al., U.S. Patent No. (4,156,187) and further in view of Fornoff et al. (U.S. Patent No. 5,931,669).

### 7. <u>ARGUMENT</u>

- A. THE EXAMINER'S REJECTION OF CLAIMS 1-5, 7, 12-17, 20, 22-26, and 28-30 UNDER 35 U.S.C. §103(a) IS IMPROPER
- 1. Claims 1-5, 7, 12-17, 20, 22-26, and 28-30

Applicant notes that claims 1-5, 7, 12-17, 20, 22-26, and 28-30 do not stand or fall together. However, the following arguments in this subsection apply to claims 1-5, 7, 12-17, 20, 22-26, and 28-30.

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the Examiner has not identified any proper motivation for the combination of Beier et al. and Murry et al.

Referring to Beier et al., the reference is directed to a switching arrangement for controlling instruments. Referring to Figure 1, the switching arrangement utilizes a control data memory 7 and a data router 10 to determine which of instruments I, II, II, and IV have been withdrawn from its holder. A control component 12 is coupled to the data router 10 and a foot actuated voltage supply 75. The control component 12 supplies a variable voltage level of 1-10 volts to the control elements 42, 43, 44, 45 to control operation of the instruments utilizing the voltage supply. See column 2, lines 9-13, column 5, lines 17-24, and Figure 1 of Beier et al. Applicant further notes that the "object" of the Beier et al. system is to supply a variable voltage level to the control elements for variable control of the devices. See column 2, lines 9-13 of Beier et al.

Referring to Murry et al., Figure 13 illustrates a transmitter having an ultrasonic transducer 288 coupled to an oscillator 282. The oscillator 288 induces the ultrasonic transducer 288 to output ultrasonic energy at different output frequencies, where each frequency corresponds to a different device to be controlled by an ultrasonic receiver. It should be noted that no information values are transmitted in the ultrasonic energy. A receiver 290 having an ultrasonic transducer 291 detects the ultrasonic energy and a

frequency detector 293 turns on a first device when it receives a first frequency and the frequency detector 294 turns on a second device when it receives a second frequency. See column 19, lines 67-68 and column 20, lines 1-7 of Beier et al.

Assuming that the transmitter and receiver of Murry et al. were somehow combined with the switching arrangement of Beier et al., applicant submits that the combination would destroy the functionality of the switching arrangement of Beier et al. As discussed above, the primary purpose of the foot actuated voltage supply 75 is to supply a variable output voltage to the control elements 42, 43, 44, 45 to control operation of the instruments. As discussed above, the transmitter of Murry et al. can merely transmit ultrasonic energy having different frequencies for selecting different devices. Thus, the transmitter does not include any information in the ultrasonic energy, for variably controlling operation (e.g., variably controlling speed) of the instruments as required by Beier et al. Thus, the combination of Beier et al. and Murry et al. would destroy the functionality of Beier et al., because the instruments could not be variably controlled.

Because the proposed combination of Beier et al. and Murry et al. would destroy the functionality of Beier et al., applicant submits that no proper motivation has been identified for the proposed combination. Because no proper motivation has been identified for the proposed combination, applicant submits that the rejection of claims 1-5, 7, 12-17, 20, 22-26 and 28-30 based on Beier et al. and Murry et al. is improper.

#### 2. Claim 1, 7, 12-17, 20, and 28

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the proposed combination of Beier et al. and Murry et al. do not teach each and every limitation of the independent claim 1, and claims 7, 12-17, 20, and 28 which depend from claim 1. Claims 1, 7, 12-17, 20, and 28 stand or fall together as a group.

Referring to independent claim 1, applicant respectfully submits that neither Beier et al. nor Murry et al, alone or in combination, teaches a first microprocessor configured to determine whether at least a first device or a second device is selected, as recited in claim

1. Beier et al. does include a vague statement that a computer 61 can contain a microprocessor to vary operating signals based on operating parameters. See column 6, lines 12-20 of Beier et al. However, Beier et al. does not provide any teaching of the computer 61 determining whether at least a first device or a second device is selected. In contrast, Beier et al. indicates that an encoder 5 is used to determine which instrument has been withdrawn from a holder. See column 3, lines 41-45 of Beier et al. Further, Murry et al. does not provide any teaching of the first microprocessor configured to determine whether at least a first device or a second device is selected, as recited in claim 1. In contrast, the oscillator 282 detects which of contacts 284, 285, 286 are closed to determine which device has been selected. See Figure 14 of Murry et al.

Further, applicant submits that neither Beier et al. nor Murry et al. provide any teaching of the first microprocessor further configured to induce the RF transmitter to transmit a first RF signal in response to at least partial displacement of the moveable member when the first device is selected, as recited in claim 1. The Examiner indicates in the Office Action that the Beier does not disclose a remote controller. See Final Office Action, page 2, lines 16-17. Referring to Murry et al., the reference does include the statement: "The foot switch 94 operates similar to the wireless control 86 which is, however, a remote R.F. Transmitter, while in the model illustrated in Figure. 3 a cable 96 hard-wire connects the control 94 to the machine 91." See column 14, lines 31-35 of Murry et al. Applicant notes, however, that the term R.F. is not defined in Murry et al. Further, Murry et al. provides numerous statements which indicate that the foot switch 94 does not transmit radio frequency (RF) signals, but instead transmits ultrasonic (e.g., pressure wave) signals. In particular, Murry et al. indicates that "Fig. 13 is a block diagram of the transmitter part of the <u>ultrasonic system</u> for wireless control <u>of the various</u> subsystems." See column 9, lines 66-68. Further, Murry et al. indicates that the foot switch 94 operates similar to wireless control 86. Further, Murry et al. indicates: "... wireless switch 86 includes an ultrasonic transmitter for radiating control signals to the medical unit 60 rather than via the hard wiring as shown in Figure 3." See column 19, lines 48-51 of Murry et al. Still further, Murry et al. indicates: "Fig. 14 comprises a

receiver and includes an ultrasonic transducer 291 which detects the <u>ultrasonic energy</u> radiated from the transducer 288..." See column 19, lines 67-68 to column 20 lines 1-2 of Murry et al. Accordingly, applicant respectfully submits that Murry et al. does not provide any clear teaching of the transmission of an RF signal in response to at least partial displacement of the moveable member when the first device is selected, as recited in claim 1. Further, Murry et al. does not provide any teaching of a microprocessor configured to induce a transmitter to transmit a first RF signal, as recited in claim 1. In contrast, referring to Figure 13 of Murry et al., an oscillator 282 is used to induce the ultrasonic transducer 288 to transmit ultrasonic energy.

Still further, for similar reasons as discussed in the preceding paragraph, applicant submits that neither Beier et al nor Murry et al. provide any teaching of the first microprocessor further configured to induce the RF transmitter to transmit a second RF signal in response to at least partial displacement of the moveable member when the second device is selected, as recited in claim 1.

Because the proposed combination of Beier et al. and Murry et al. do not teach each and every limitation of independent claim 1, and claims 7, 12-17, 20, and 28 which depend from claim 1, applicant submits that the rejection of claims 1, 7, 12-17, 20 and 28 under 35 U.S.C. §103(a) is improper.

#### 2. Claims 22, 24, 25, and 26

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the proposed combination of Beier et al. and Murry et al. do not teach each and every limitation of the independent claim 22 and claims 24, 25, and 26 which depend from claim 22. Claims 22, 24, 25, and 26 stand or fall together as a group.

Applicant submits that neither Beier et al. nor Murry et al. teach controlling a first device based on an RF signal as recited in claim 22. In contrast, Murry et al. indicates: "receiver... includes an ultrasonic transducer 291 which detects the <u>ultrasonic energy</u>

radiated from the transducer 288 and supplies it to an amplifier. The output of the amplifier is supplied to a frequency detector 293 which detects a first frequency and supplies an output to control the aspirator control 297." See Murry et al., column 19, lines 67-68 to column 20, lines 1-5 of Murry et al. Thus, Murry et al. teaches using ultrasonic energy for controlling devices instead of RF signals. Applicants note that a disadvantage with the Murry et al. system is that a transmission range for ultrasonic energy can be significantly less than a transmission range of RF signals. Further, the Examiner indicates in the Final Office Action that the Beier does not disclose a remote controller. See Final Office Action, page 2, lines 16-17.

Because the proposed combination of Beier et al. and Murry et al. does not teach each and every limitation of claim 22, and claims 24, 25, and 26 which depend from claim 22, applicant submits that the rejection of claims 22, 24, 26, and 26 under 35 U.S.C. §103(a) is improper.

#### 3. Dependent claims 2 and 23

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the proposed combination of Beier et al. and Murry et al. do not teach each and every limitation of the claims 2 and 23. Claims 2 and 23 stand or fall together a group.

Applicant submits that neither Beier et al. nor Murry et al. provide any teaching of generating first and second RF signals where the first RF signal has a first identifier value associated with the first device and the second RF signal has a second identifier value associated with the second device, as recited in claims 2 and 23. In contrast, referring to Figure 13 of Murry et al., an oscillator 282 induces the ultrasonic transducer 288 to output ultrasonic energy at different output frequencies, where each frequency corresponds to a different device to be controlled by an ultrasonic receiver. However, the ultrasonic energy does not have first and second identifier values therein associated with the first and second devices, respectively, as recited in claims 2 and 23. A disadvantage of the Murry et al. system is that ultrasonic noise in a room could substantially interfere with the ultrasonic

transmission.

Because the proposed combination of Beier et al. and Murry et al. do not teach each and every limitation of dependent claims 2 and 23, applicant submits that the rejection of claims 2 and 23 under 35 U.S.C. §103(a) is improper.

### 4. Dependent claims 3, 4, and 5

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the proposed combination of Beier et al. and Murry et al. do not teach each and every limitation of the dependent claims 3, 4 and 5. Claims 3, 4, and 5 stand or fall together as a group.

Applicant submits that neither Beier et al. nor Murry et al. provide any teaching of a first device actuation unit configured to receive the first RF signal and to actuate the first device based on the first RF signal, as recited in claims 3 and 4. In particular, applicant notes that Murry et al. does not even mention use of a device configured to receive an RF signal. Instead, Murry et al. indicates "receiver... includes an ultrasonic transducer 291 which detects the <u>ultrasonic energy</u> radiated from the transducer 288 and supplies it to an amplifier. The output of the amplifier is supplied to a frequency detector 293 which detects a first frequency and supplies an output to control the aspirator control 297." See column 19, lines 67-68 to column 20, lines 1-5 of Murry et al. Further, the Examiner indicates in the Final Office Action that the Beier et al. does not disclose a remote controller. See Final Office Action, page 2, lines 16-17.

Because the proposed combination of Beier et al. and Murry et al. do not teach each and every limitation of dependent claim 3, and claims 4 and 5 which depend from claim 3, applicant submits that the rejection of claims 3, 4, and 5 under 35 U.S.C. §103(a) is improper.

#### 5. Dependent claims 29 and 30.

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the proposed combination of Beier et al. and Murry et al. does not teach each and every limitation of the dependent claims 29 and 30. Claims 29 and 30 stand or fall together as a group.

Applicant submits that neither Beier et al. nor Murry et al. provide any teaching of the following limitations: "device actuation unit is further configured to receive the third RF signal and to maintain activation of the first device during a first time period from at least receipt of the first RF signal to receipt of the third RF signal, if the first time period is less than or equal to a threshold time period.", as recited in claim 29. Further, neither references provides any teaching of: "receiving the third RF signal at a device actuation unit and maintaining activation of the first device during a first time period from at least receipt of the first RF signal to receipt of the third RF signal, if the first time period is less than or equal to a threshold time period", as recited in claim 30. In particular, applicants note that neither Beier et al. nor Murry et al. even mention using a threshold time period for controlling devices.

Because the proposed combination of Beier et al. and Murry et al. do not teach each and every limitation of dependent claims 29 and 30, applicant submits that the rejection of claims 29 and 30 under 35 U.S.C. §103(a) is improper.

- B. THE EXAMINER'S REJECTION OF CLAIMS 8-11 UNDER 35 U.S.C. §103(a) IS IMPROPER
- 1. Claims 8, 9, 10, and 11

Applicant notes that claims 8, 9, 10, and 11 do not stand or fall together as a group. However, the following arguments in this subsection apply to claims 8, 9, 10, and 11.

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the Examiner has not identified any proper motivation for the combination of Beier et al., Murry et al., and Jones et al.

Assuming that the transmitter and receiver of Murry et al. were somehow combined with the switching arrangement of Beier et al., applicant submits that the combination would destroy the functionality of the switching arrangement of Beier et al. Referring to Beier et al., the primary purpose of the foot actuated voltage supply 75 is to supply a variable output voltage to the control elements 42, 43, 44, 45 to control operation of the instruments. As discussed above, the transmitter of Murry et al. transmits ultrasonic energy having different frequencies for turning on different devices. Thus, the transmitter does not include any information or any means for generating information in the ultrasonic energy, for variably controlling operation (e.g., variably controlling speed) of the devices as required by Beier et al. Thus, the combination of Beier et al. and Murry et al. would destroy the functionality of Beier et al., because the instruments could not be variably controlled.

Further, assuming the foot controller apparatus 20 of Jones et al. were somehow combined with Beier et al., Murry et al., the foot controller apparatus 20 utilizes an electrical switch 70 that is either closed or opened by actuation of the member 33 to control a valve. See Figure 4 of Jones et al. Accordingly, the foot controller apparatus 20 cannot output a variable voltage that would be required by the system of Beier et al. Accordingly, the functionality of Beier et al. would be further destroyed by combining Jones et al. therewith.

Because the proposed combination of Beier et al., Murry et al., and Jones et al. would destroy the functionality of Beier et al., applicant submits that no proper motivation has been identified for the proposed combination. Because no proper motivation has been identified for the proposed combination, applicant submits that the rejection of claims 8, 9, 10, 11 based on Beier et al., Murry et al., and Jones et al. is improper.

#### 2. Claim 8

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the proposed combination of Beier et al., Murry et al., and Jones et al. does not teach each and every limitation of the dependent claim 8.

Applicant submits that the proposed combination of Beier et al., Murry et al., and Jones et al. do not provide any teaching of the following limitations: "a pneumatic switch operatively coupled to the first microprocessor and to the conduit, wherein at least partial displacement of the moveable member actuates the pneumatic valve increasing a pressure in the conduit, when the pressure is greater than a predetermined pressure the pneumatic switch is actuated inducing the first microprocessor to induce the RF transmitter to transmit the first RF signal." In particular, applicant notes that none of the references provide any teaching of utilizing a microprocessor to induce an RF transmitter to transmit an RF signal, as recited in claim 8. Further, none of the references provide any teaching of inducing the first microprocessor to perform a task based on a pressure level.

Because the proposed combination of Beier et al., Murry et al., and Jones et al. does not teach each and every limitation of dependent claim 8, applicant submits that the rejection of claim 8 under 35 U.S.C. §103(a) is improper.

### 3. Claims 9, 10, and 11

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the proposed combination of Beier et al., Murry et al., and Jones do not teach each and every limitation of the dependent claims 9, 10, and 11. Claims 9, 10 and 11 stand or fall together as a group.

Applicant submits that the proposed combination of Beier et al., Murry et al., and Jones et al. do not provide any teaching of: "..the system further including a pressure sensor coupled to the conduit generating a pressure signal indicative of the pressure in the conduit that is transmitted to the first microprocessor", as recited in claim 9. In particular, applicant notes that none of the references even mention use of a pressure sensor generating a pressure signal indicative of the pressure.

Because the proposed combination of Beier et al., Murry et al., and Jones et al. do not teach each and every limitation of dependent claim 9, and claims 10 and 11 which depend from claim 9, applicant submits that the rejection of claims 9, 10, and 11 under 35 U.S.C. §103(a) is improper.

C. THE EXAMINER'S REJECTION OF CLAIMS 18 and 27 UNDER 35 U.S.C. §103(a) IS IMPROPER

#### 1. Claims 18 and 27

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the Examiner has not identified any proper motivation for the combination of Beier et al., Murry et al., and Fornoff et al. Claims 18 and 27 stand or fall together as a group.

Assuming that the transmitter and receiver of Murry et al. were somehow combined with the switching arrangement of Beier et al., applicant submits that the combination would destroy the functionality of the switching arrangement of Beier et al. Referring to Beier et al., the primary purpose of the foot actuated voltage supply 75 is to supply a variable output voltage to the control elements 42, 43, 44, 45 to control operation of the instruments. As discussed above, the transmitter of Murry et al. can merely transmit ultrasonic energy having different frequencies for selecting different devices. Thus, the transmitter does not include any information or any means for including information in the ultrasonic energy, for variably controlling operation (e.g., variably controlling speed) of the instruments as required by Beier et al. Thus, the combination of Beier et al. and Murry et al. would destroy the functionality of Beier et al., because the instruments could not be variably controlled. Further, assuming the camera of Fornoff et al. were somehow combined with Beier et al., Murry et al., the variable control functionality required by Beier et al. would remain destroyed.

Because the proposed combination of Beier et al., Murry et al., and Fornoff et al. would destroy the functionality of Beier et al., applicant submits that no proper motivation has been identified for the proposed combination. Because no proper motivation has been identified for the proposed combination, applicant submits that the rejection of claims 18 and 27 is improper.

Applicant submits that the Examiner did not establish a prima facie case of obviousness because the proposed combination of Beier et al., Murry et al., and Fornoff et

al. do not teach each and every limitation of the dependent claims 18 and 27.

Applicant submits that the proposed combination of Beier et al., Murry et al., and Fornoff et al. do not provide any teaching of: "first device comprises a video capture board, the system further comprising a first device actuation unit operatively coupled to the video capture board, the first device actuation unit configured to receive the first RF signal and to induce the video capture board to store a video image in a memory in response to the first RF signal", as recited in claim 18. Further, applicants submit that the references do not provide any teaching of inducing a video capture board to store a video image in a memory in response to an RF signal, as recited in claim 27. In particular, applicant notes the none of the references, including Fornoff et al., mention use of a video capture card. Still further, none of the references including Fornoff et al., provide any teaching of storing a video image in memory in response to an RF signal.

Because the proposed combination of Beier et al., Murry et al., and Fornoff et al. do not teach each and every limitation of dependent claims 18 and 27, applicant submits that the rejection of claims 18 and 27 under 35 U.S.C. §103(a) is improper.

#### D. CONCLUSION

In view of the foregoing arguments, applicant respectfully submits that the present application for a system and a method for remotely controlling devices is novel and unobvious.

The Examiner's rejection of Claims 1-5, 7, 12-17, 20, 22-26, and 28-30 is improper because no proper motivation has been identified for the combination of Beier et al. and Murry et al., because the proposed combination would destroy the functionality of Beier et al. Further, the combination of Beier et al. and Murry et al. is improper because the combination does not teach each and every element of the claimed invention.

The Examiner's rejection of Claims 8, 9, 10, and 11 is improper because no proper motivation has been identified for the combination of Beier et al., Murry et al., and Jones et al. because the proposed combination would destroy the functionality of Beier et al.

Further, the combination of Beier et al., Murry et al., and Jones et al. is improper because the combination does not teach each and every element of the claimed invention.

The Examiner's rejection of Claims 18 and 27 is improper because no proper motivation has been identified for the combination of Beier et al., Murry et al., and Fornoff et al. because the proposed combination would destroy the functionality of Beier et al. Further, the combination of Beier et al., Murry et al., and Fornoff et al. is improper because the combination does not teach each and every element of the claimed invention.

In view of the above considerations, a reversal of the rejections of record, or such recommendation or relief as equity may require, is respectfully requested.

Date: December ∂∂, 2005

Respectfully Submitted,

By Arm Brokert

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#### **CLAIMS APPENDIX**

- 1. A system for remotely controlling devices, comprising:
  - a foot pedal unit having a moveable member;
- a first microprocessor operatively associated with the foot pedal unit and an RF transmitter, the first microprocessor configured to determine whether at least a first device or a second device is selected, the first microprocessor further configured to induce the RF transmitter to transmit a first RF signal in response to at least partial displacement of the moveable member when the first device is selected, the first microprocessor further configured to induce the RF transmitter to transmit a second signal in response to at least partial displacement of the moveable member when the second device is selected.
- 2. The system of claim 1 wherein the first RF signal has a first identifier value associated with the first device and the second RF signal has a second identifier value associated with the second device.
- 3. The system of claim 1 further comprising a first device actuation unit configured to receive the first RF signal and to actuate the first device based on the first RF signal.
- 4. The system of claim 3 wherein the first device actuation unit includes a second microprocessor and an RF receiver operably coupled to the second microprocessor.
- 5. The system of claim 3 further comprising a second device actuation unit configured to receive the second RF signal and to actuate the second device based on the second RF signal.

- 7. The system of claim 1 further comprising an electrical switch operatively coupled to the moveable member and to the first microprocessor, wherein at least partial displacement of the moveable member actuates the electrical switch, the first microprocessor configured to induce the transmitter to transmit the first signal in response to actuation of the switch.
- 8. The system of claim 1 further comprising a pneumatic valve coupled to a conduit, the valve further operatively coupled to the moveable member, the system further including a pneumatic switch operatively coupled to the first microprocessor and to the conduit, wherein at least partial displacement of the moveable member actuates the pneumatic valve increasing a pressure in the conduit, when the pressure is greater than a predetermined pressure the pneumatic switch is actuated inducing the first microprocessor to induce the RF transmitter to transmit the first RF signal.
- 9. The system of claim 1 further comprising a pneumatic valve operatively coupled to a conduit, the valve being further operatively coupled to the movable member, the valve opening in response to at least partial displacement of the moveable member, the system further including a pressure sensor coupled to the conduit generating a pressure signal indicative of the pressure in the conduit that is transmitted to the first microprocessor.
- 10. The system of claim 9 wherein the first microprocessor is configured to induce the RF transmitter to generate the first RF signal when the pressure signal indicates the pressure is greater than a predetermined pressure.
- 11. The system of claim 9 wherein the first microprocessor is configured to induce the RF transmitter to generate the first RF signal containing a command value determined from the pressure signal.

- 12. The system of claim 1 further comprising a position sensor operatively coupled to the movable member of the foot pedal unit, the position sensor generating a third signal indicative of a position of the moveable member that is received by the first microprocessor, the first microprocessor configured to induce the RF transmitter to generate the first RF signal containing a command value determined from the position signal.
- 13. The system of claim 12 wherein the position signal is indicative of an angular position of the movable member.
- 14. The system of claim 12 wherein the position signal is indicative of a linear position of the movable member.
- 15. The system of claim 1 wherein the first device comprises a dental implement.
- 16. The system of claim 1 wherein the first device comprises a medical implement.
- 17. The system of claim 1 wherein the first device comprises one of a drill, a microprocessor position-controllable dental chair, an infrared photo-optic imaging camera, a dental irrigator, an intra-oral camera, a video capture circuit, a laser, an air-abrasion unit, an electro-surgery unit, an ultrasonic teeth cleaning unit, a piezo-ultrasonic unit, an air polishing prophylaxis device, a gum depth measurement probe, a surgical microscope with controllable focusing adjustment, a microprocessor controlled anesthetic delivery system, and an endodontic heat source device.
- 18. The system of claim 1 wherein the first device comprises a video capture board, the system further comprising a first device actuation unit operatively coupled to the video capture board, the first device actuation unit configured to receive the first RF signal and to induce the video capture board to store a video image in a memory in response to the first RF signal.

20. The system of claim 1 further comprising:

a second microprocessor operatively coupled to an RF receiver, and
an RF transmitter unit configured to transmit a third RF signal having a first
identifier value associated with the first device for selecting the first device, the second
microprocessor being further configured to store the first identifier value in a memory
when the third RF signal is received by the RF receiver.

22. A method for remotely controlling devices, comprising:

determining when a first device is selected, utilizing a microprocessor; inducing an RF transmitter to transmit a first RF signal in response to at least partial displacement of a moveable member on a foot pedal unit when the first device is selected, utilizing the microprocessor;

determining when a second device is selected, utilizing the microprocessor; inducing the RF transmitter to transmit a second RF signal in response to at least partial displacement of the moveable member on the foot pedal unit when the second device is selected, utilizing the microprocessor; and,

controlling the first device based on the first signal.

- 23. The method of claim 22 wherein the first RF signal has a first identifier value associated with the first device and the second RF signal has a second identifier value associated with the second device.
- 24. The method of claim 22 further comprising controlling the second device based on the second RF signal.
- 25. The method of claim 22 wherein the first device comprises a dental implement or a medical implement.

- 26. The method of claim 22 wherein the first device comprises one of a drill, a microprocessor position-controllable dental chair, an infrared photo-optic imaging camera, a dental irrigator, an intra-oral camera, a video capture circuit, a laser, an air-abrasion unit, an electro-surgery unit, an ultrasonic teeth cleaning unit, a piezo-ultrasonic unit, an air polishing prophylaxis device, a gum depth measurement probe, a surgical microscope with controllable focusing adjustment, a microprocessor controlled anesthetic delivery system, and an endodontic heat source device.
- 27. The method of claim 22 wherein the controlling step includes inducing a video capture board to store a video image in a memory in response to the first signal.
- 28. The system of claim 3 wherein the first microprocessor is further configured to induce the RF transmitter to transmit a third RF signal in response to at least partial displacement of the moveable member when the first device is selected.
- 29. The system of claim 28 wherein the device actuation unit is further configured to receive the third RF signal and to maintain activation of the first device during a first time period from at least receipt of the first RF signal to receipt of the third RF signal, if the first time period is less than or equal to a threshold time period.
- 30. The method of claim 22 further comprising:

inducing the RF transmitter to transmit a third RF signal in response to at least partial displacement of the moveable member when the first device is selected; and

receiving the third RF signal at a device actuation unit and maintaining activation of the first device during a first time period from at least receipt of the first RF signal to receipt of the third RF signal, if the first time period is less than or equal to a threshold time period.

# EVIDENCE APPENDIX

Attached hereto are U.S. Patent Nos. 4,571,681, 4,156,187, 4,114,275, and 5,931,669.

# RELATED PROCEEDINGS APPENDIX

Applicant is not aware of any related proceedings for this patent application.